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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/573,811	01/11/2007	Anthony Peter Hulbert	038819.57500US	9356

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EXAMINER	
NGUYEN, TUAN HOANG	
ART UNIT	PAPER NUMBER
2618	

MAIL DATE	DELIVERY MODE
10/14/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/573,811	HULBERT, ANTHONY PETER	
	Examiner	Art Unit	
	TUAN H. NGUYEN	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 August 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4,5,7,10-17,20,22 and 23* is/are rejected.

7)☒ Claim(s) *3,6,8,9,18,19 and 21* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *28 March 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Species I being, claims 1-23 in the reply filed on 08/04/2009 is acknowledged.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

3. The information disclosure statement (IDS) submitted on 03/28/2006, 01/11/2007 and 08/04/2009 has been considered by Examiner and made of record in the application file.

Specification

4. The disclosure is objected to because of the following informalities:

Page 3 is recited the acronym "FFT". The first occurrence of the acronym "FFT" should be spelled out with the acronym appearing in parenthesis. Appropriate corrections are required.

Claim Objections

5. Claim 11 is objected to because of the following informalities: the acronym "FFT" renders the claims indefinite because it has not spelled out the acronym which does not positively identify the claims limitation. Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 3, 4, 13 and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 3 is recited the limitation "a method according to claim 1, further comprising comparing the transmit power spectral density limit with a predetermined minimum transmit power spectral density required by the transmitter for that frequency; and transmitting a signal at that frequency, **only if the determined transmit power spectral density limit exceeds the minimum**". What happen "**if the determined transmit power spectral density limit is NOT exceed the minimum**".

Claim 4 is recited the limitation "a method according to claim 1, wherein a predetermined maximum transmit power spectral density is set, **if no beacons are**

received at the transmitter". What happen "**if beacons are received at the transmitter**".

Claim 13 is recited the limitation "a method according to claim 1, wherein a receiver transmits a beacon **only if interference levels exceed an acceptable value**". What happen "**if interference levels <u>are NOT</u> exceed an acceptable value**".

Claim 20 is recited the limitation "a method according to claim 1, wherein the beacon receiver is periodically tested with an internal beacon of known power and its associated transmitter is prevented from transmitting **if a beacon receiver fault occurs**". What happen "**if a beacon receiver <u>is NOT</u> fault occurs**".

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1, 12-15, 20 and 22-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Haartsen (US PAT. 5,794,157).

Consider claim 1, Haartsen teaches a method of controlling interference from a transmitter in one communication system to a receiver in another communication system, the method comprising transmitting a beacon from a beacon transmitter associated with the receiver representative of a frequency at which the receiver is trying to receive (fig. 1, col. 6 lines 16-36); listening for the beacon at a beacon receiver associated with the transmitter (col. 6 lines 57-64); and deriving a power spectral density limit for a transmission from the transmitter based upon the strength of the beacon received at the beacon receiver (figs. 3 and 4, col. 2 lines 53-67).

Consider claim 12, Haartsen further teaches each beacon transmits a type identifier and each beacon receiver comprises type specific correlation means, such that a beacon receiver can ignore same type beacons in determining whether or not or how much power to transmit (col. 6 lines 37-54).

Consider claim 13, Haartsen further teaches a receiver transmits a beacon only if interference levels exceed an acceptable value (col. 7 lines 16-25).

Consider claim 14, Haartsen further teaches the beacon power is adapted to the wanted signal power received at the receiver (col. 7 lines 59-67).

Consider claim 15, Haartsen further teaches the beacon power is adapted to the interference power received at the receiver (col. 5 line 61 through col. 6 line 15).

Consider claim 20, Haartsen further teaches the beacon receiver is periodically tested with an internal beacon of known power and its associated transmitter is prevented from transmitting if a beacon receiver fault occurs (col. 2 lines 53-67).

Consider claim 22, Haartsen teaches a communication network comprising at least one transmitter belonging to one communication system and at least one receiver belonging to another communication system, wherein a beacon transmitter is associated with the at least one receiver and a beacon receiver is associated with the at least one transmitter (fig. 1, col. 6 lines 16-36), whereby a power spectral density limit for transmission at any one transmitter is determined based upon the strength of the or each beacon received at the associated beacon receiver (figs. 3 and 4, col. 2 lines 53-67).

Consider claim 23, Haartsen teaches a transmitter for a communication system, the transmitter being provided with an associated beacon receiver (fig. 1, col. 6 lines 16-36), whereby a power spectral density limit for transmission from the transmitter is determined based on the strength of one or more beacons received at the associated beacon receiver (figs. 3 and 4, col. 2 lines 53-67).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

11. Claims 2, 4, 5, 7, 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haartsen in view of Klein et al. (U.S. Publication No. 2007/0004444 hereinafter, "Klein").

Consider claim 2, Haartsen differs from the claimed invention in which a plurality of beacons received representing the same frequency, the derived transmit power spectral density limit is related to that of the beacon received at the highest power.

However, Klein teaches a plurality of beacons received representing the same frequency, the derived transmit power spectral density limit is related to that of the beacon received at the highest power (page 2, [0017]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Haartsen for a plurality of beacons received representing the same frequency, the derived transmit power spectral density limit is related to that of the beacon received at the highest power, as per teaching of Klein, in order to provide a method for use in a wireless local area network, wherein mobile units receive beacon signals from access points and associate with access points for data

communication therewith. The method is for controlling transmitter power level of a mobile unit.

Consider claim 4, Klein further teaches a predetermined maximum transmit power spectral density is set, if no beacons are received at the transmitter (page 1, [0010]).

Consider claim 5, Klein further teaches the method further comprising choosing a transmission frequency for the transmitter which permits the maximum power spectral density for the transmission (page 1, [0010]).

Consider claim 7, Haartsen further teaches a transmit power spectral density for a transmission from the transmitter is set dependent upon the strength of the received beacon at the chosen frequency (col. 6 line 63 through col. 7 line3).

Consider claim 16, Klein further teaches a bandwidth managed by a beacon is sufficiently narrow that substantial correlation of shadow fading applies across that bandwidth (page 2, [0017]).

Consider claim 17, Klein further teaches each beacon occupies a frequency bandwidth which is small compared with the total bandwidth managed by that beacon (page 2, [0017]).

12. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haartsen in view of Tanno et al. (U.S. PAT. 7,315,566 hereinafter, "Tanno").

Consider claim 10, Haartsen differs from the claimed invention in which a code division multiple access (CDMA) protocol is applied, whereby beacons representing different frequencies are distinguished from one another by different codes.

However, Tanno teaches a code division multiple access (CDMA) protocol is applied, whereby beacons representing different frequencies are distinguished from one another by different codes (col. 1 lines 13-24 and col. 6 lines 12-23).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Haartsen for a code division multiple access (CDMA) protocol is applied, whereby beacons representing different frequencies are distinguished from one another by different codes, as per teaching of Tanno, in order to provide the smaller the transmission power is allocated to control channels, the larger the transmission power can be allocated to traffic channels; it is thus feasible to increase the number of mobile stations that can be accommodated in the system, i.e., to increase the channel capacity.

Consider claim 11, Tanno further teaches a correlation period of a CDMA component of the beacon signal is controlled by an FFT controller (col. 6 lines 24-35).

Allowable Subject Matter

13. Claims 3, 6, 8, 9, 18, 19 and 21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

14. Any response to this action should be mailed to:

Mail Stop_____ (Explanation, e.g., Amendment or After-final, etc.)

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Facsimile responses should be faxed to:

(571) 273-8300

Hand-delivered responses should be brought to:

Customer Service Window

Randolph Building

401 Dulany Street

Alexandria, VA 22313

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan H. Nguyen whose telephone number is (571) 272-8329. The examiner can normally be reached on 8:00Am - 5:00Pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Maung Nay A. can be reached on (571) 272-7882. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Tuan H. Nguyen/
Examiner
Art Unit 2618